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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,363	10/16/2001	Takeshi Nishiuchi	991406A	4158

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EXAMINER
OLTMANS, ANDREW L

ART UNIT	PAPER NUMBER
1742	4

DATE MAILED: 08/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/977,363	NISHIUCHI ET AL.	
	Examiner	Art Unit	
	Andrew L Oltmans	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9,10,14 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9,10,14 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *09/461,006* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Japanese Patent JP 07230906 A

2. Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent JP 07230906 A (JP '653).

JP '653 teaches a method of forming a metal oxide (i.e. silicon oxide) on a rare earth metal permanent magnet, wherein the method includes coating the magnet using a sol-gel coating process (abstract; see paragraphs [0026] and [0027] of the English language translation). The claims do not distinguish over the teachings of JP '653.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Japanese Patent JP 07230906 A

4. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent JP 07230906 A (JP '653).

JP '653 teaches as set forth above in paragraph 2.

JP '653 fails to meet all the limitations of the instant claims in that JP '653 does not explicitly teach the interfacial layer of the metal oxide film with the R atom chemically bonded with the film forming metal atom through the oxygen atom.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the coating taught by the reference is of the same composition (i.e. oxide) and is made by the same process step (i.e. sol-gel process) as recited in the claims and therefore one of ordinary skill in the art would expect that the products taught by the reference would be the same as applicant's claimed product, including the product's interfacial layer of the metal oxide film with R atom chemically bonded with a film forming metal atom through oxygen atom.

> "Where **the claimed and prior art products are identical or substantially identical in structure or composition or are produced by identical or substantially identical processes**, a prima facie case of either anticipation or obviousness has been established, In re Best 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01. [emphasis added by examiner]

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same

invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claims 9-10 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 3 of prior U.S. Patent No. 6,399,147 B2. This is a double patenting rejection.

The claims of U.S. Patent No. 6,399,147 B2 recite a process for producing a rare earth metal-based permanent magnet (lines 1-2 of '147 claim 1), comprising a step of forming a metal oxide film on the surface of a magnet by a sol-gel coating process (line 5 of '147 claim 1) wherein the metal oxide includes Al, Si, Zr or Ti (lines 4-5 of '147 claim 3):

> 1. A process for producing an Fe—B—R based permanent magnet wherein R is a rare earth metal, comprising the steps of forming a metal film on the surface of an Fe—B—R based permanent magnet by a vapor deposition process, applying a sol solution produced by the hydrolytic reaction and the polymerizing reaction of a metal compound which is a starting material for a metal oxide film, to the surface of said metal film, and subjecting the applied sol solution to a heat treatment to form a metal oxide film having a thickness in a range of 0.01 μm to 1 μm.

[emphasis added by examiner]

> 3. A process for producing an Fe—B—R based permanent magnet according to claim 1, wherein said metal oxide film is formed of at least one metal oxide component selected from the group consisting of Al oxide, Si, oxide, Zr oxide and Ti oxide.

[emphasis added by examiner]

The instant claims do not distinguish over the claims of U.S. Patent No. 6,399,147 B2.

7. Claims 9-10 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 5 of prior U.S. Patent No. 6,251,196 B1. This is a double patenting rejection.

The claims of U.S. Patent No. 6,251,196 B1 recite a process for producing a rare earth metal-based permanent magnet (lines 5-6 of '196 claim 1), comprising a step of forming a metal oxide film on the surface of a magnet by a sol-gel coating process (lines 13-14 of '196 claim 1) wherein the metal oxide includes Al, Si, Zr or Ti (lines 2-3 of '196 claim 3):

1. A process for producing a permanent magnet having a film of a first metal provided on a surface thereof, and a film of oxide of a second metal provided on the film of the first metal, comprising the steps of:

placing into a treating vessel an Fe—B—R based permanent magnet, wherein R is a rare earth metal, and pieces of the first metal;

vibrating and/or agitating the magnet and the pieces of the first metal in the treating vessel, thereby forming on the surface of the magnet a film of a fine powder of the first metal produced from said pieces of the first metal;

applying to the surface of the film of the fine powder of the first metal a sol solution produced by hydrolysis of a compound of the second metal, wherein said compound is a staring material for a film of oxide of the second metal;

and subjecting the applied sol solution to a heat treatment whereby a film of oxide of the second metal is formed on the film of the first metal.

[emphasis added by examiner]

5. A process according to claim 1, wherein the second metal is at least one selected from the group consisting of Al, Si, Zr and Ti.

[emphasis added by examiner]

The instant claims do not distinguish over the claims of U.S. Patent No. 6,251,196 B1.

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 14-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3 of U.S. Patent No. 6,399,147 B2.

Although the conflicting claims are not identical, they are not patentably distinct from each other because U.S. Patent No. 6,399,147 B2 does not explicitly claim the interfacial layer of the metal oxide film with the R atom chemically bonded with the film forming metal atom through the oxygen atom. The claims of U.S. Patent No. 6,399,147 B2 recite a process for producing a rare earth metal-based permanent magnet (lines 1-2 of '147 claim 1), comprising a step of forming a metal oxide film on the surface of a magnet by a sol-gel coating process (line 5 of '147 claim 1) wherein the metal oxide includes Al, Si, Zr or Ti (lines 4-5 of '147 claim 3)

One of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the coating claimed by U.S. Patent No. 6,399,147 B2 is of the same composition (i.e. oxide) and is made by the same process step (i.e. sol-gel process) as recited in the claims and therefore one of ordinary skill in the art would expect that the products claimed by U.S. Patent No. 6,399,147 B2 would be the same as applicant's claimed product, including the product's interfacial layer of the metal oxide film with R atom chemically bonded with a film forming metal atom through oxygen atom.

> "Where **the claimed and prior art products are identical or substantially identical in structure or composition or are produced by identical or substantially identical processes**, a prima facie case of either anticipation or obviousness has been established, In re Best 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess

the characteristics of the claimed product. In re Best 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01. [emphasis added by examiner]

10. Claims 14-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No. 6,251,196 B1.

Although the conflicting claims are not identical, they are not patentably distinct from each other because U.S. Patent No. 6,251,196 B1 does not explicitly claim the interfacial layer of the metal oxide film with the R atom chemically bonded with the film forming metal atom through the oxygen atom. The claims of U.S. Patent No. 6,251,196 B1 recite a process for producing a rare earth metal-based permanent magnet (lines 5-6 of '196 claim 1), comprising a step of forming a metal oxide film on the surface of a magnet by a sol-gel coating process (lines 13-14 of '196 claim 1) wherein the metal oxide includes Al, Si, Zr or Ti (lines 2-3 of '196 claim 3):

One of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the coating claimed by U.S. Patent No. 6,251,196 B1 is of the same composition (i.e. oxide) and is made by the same process step (i.e. sol-gel process) as recited in the claims and therefore one of ordinary skill in the art would expect that the products claimed by U.S. Patent No. 6,251,196 B1 would be the same as applicant's claimed product, including the product's interfacial layer of the metal oxide film with R atom chemically bonded with a film forming metal atom through oxygen atom.

"Where **the claimed and prior art products are identical or substantially identical in structure or composition or are produced by identical or substantially identical processes**, a prima facie case of either anticipation or obviousness has been established, In re Best 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01. [emphasis added by examiner]

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L Oltmans whose telephone number is 703-308-2594. The examiner can normally be reached 8:30-5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

ALO

August 12, 2002

John P. Sheehan
Primary Examiner
Art Unit 1742